No. 795,054. PATENTED JULY 18, 1905.

E. G. NICEWANER.

ATTACHMENT FOR AUTOMOBILES.

APPLICATION FILED MAY 11, 1905.

Fig. 1

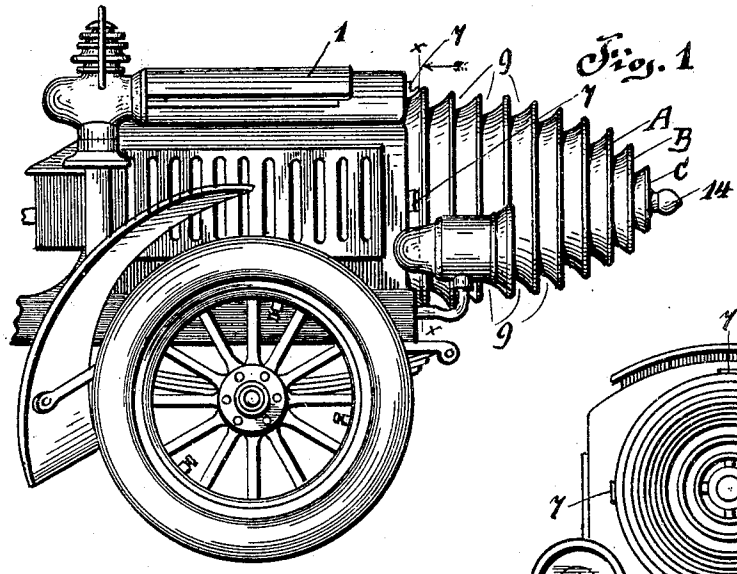


Fig. 2

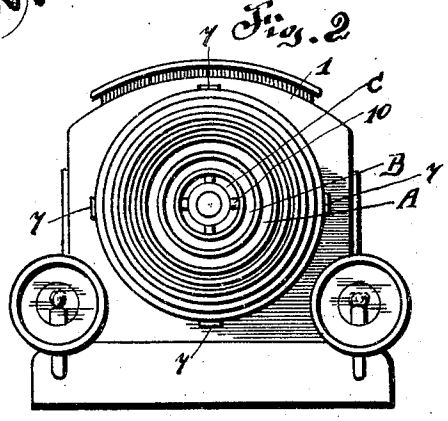


Fig. 3

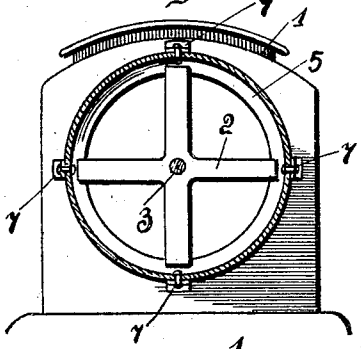
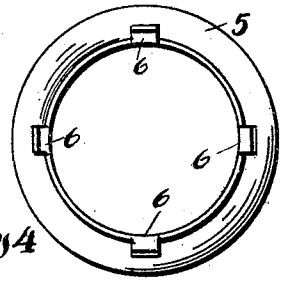


Fig. 4



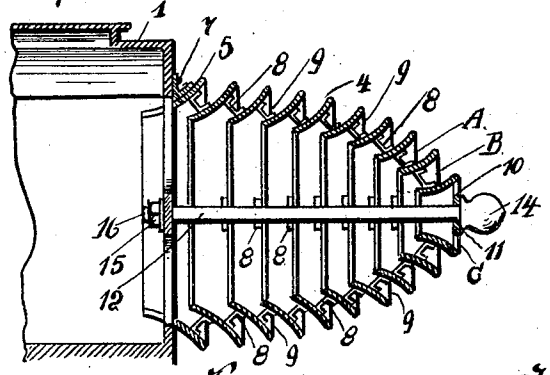


Fig. 5.

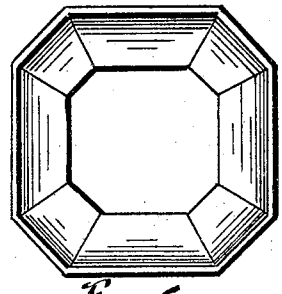


Fig 6

Witnesses:

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No. 795,054. Patented July 18, 1905.

UNITED STATES PATENT OFFICE.

EDWIN G. NICEWANER, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO WILLIAM MONTGOMERY, OF PITTSBURG, PENNSYLVANIA.

ATTACHMENT FOR AUTOMOBILES.

SPECIFICATION forming part of Letters Patent No. 795,054, dated July 18, 1905.

Application filed May 11, 1905. Serial No. 259,898.

To all whom it may concern:

Be it known that I, EDWIN G. NICEWANER, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Attachments for Automobiles, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in attachments for automobiles, and relates more particularly to a novel form of aerator or cooler for the working parts of an automobile.

My invention aims to provide a novel form of aerator or cooler adapted to be used in connection with motor-driven vehicles. In this connection my improved aerator or cooler can be readily employed in connection with the ordinary and well-known form of aerator or cooler now used, and my improved aerator is simply attached in front of the present form of aerator to increase the cooling facilities of said aerator. To this end I have devised a novel and attractive aerator which will add to the general appearance of an automobile to which it is attached.

It is a well-known fact that the present types of machines have practically square fronts in which the ordinary form of aerator or cooler is mounted. The square fronts present an unsightly appearance and ruin the general symmetrical lines or contour of the automobiles, besides adding no real advantage to the general merits of the machine. I have constructed my improved aerator or cooler upon symmetrical lines, whereby when it is attached to the square front of an automobile it will add to the general appearance of the machine besides producing a draft of air when the machine is in motion which will thoroughly cool all the exposed internal working parts of the automobile.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts, which will be hereinafter more fully described and then specifically pointed out in the claims, and, referring to the drawings accompanying this application, like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation view of the front end of an automobile equipped with my improved aerator. Fig. 2 is a front view of the same. Fig. 3 is a vertical sectional view taken on the line *x x* of Fig. 1 looking in the direction of the arrow. Fig. 4 is a rear view of one of the sections of my improved aerator. Fig. 5 is a longitudinal sectional view of my improved aerator, illustrating the same in position upon the front end of an automobile; and Fig. 6 is a front view of a modified form of deflector.

To put my invention into practice, I have illustrated the front end of an automobile having a housing 1, in which is mounted a part of the working parts of the automobile. It has been the practice to mount a conventional form of aerator in the forward end of the housing for cooling the motor, and I have constructed my improved aerator whereby it can be used as an extra aerator or cooler in connection with the conventional form of aerator, or it may be used separately, the construction of the aerator being such as to convey a voluminous draft of air within the housing. In order to support my improved aerator, I construct the front of the housing 1 with a spider-like frame 2, having a central opening 3 formed therein.

The aerator proper consists of a plurality of sections 4, each of which serves functionally as a deflector for air when an automobile is in operation. Each section conforms substantially to a frustated cone-shaped cup or funnel, and in the present instance I have formed the sections of different diameters, whereby the aerator in its entirety will present a cone-shaped contour, which will enhance the general appearance of the front end of an automobile. The funnel-shaped section of the aerator (designated 5) forms a base for the remaining section, and in order that the section 5 may be rigidly secured to the front end of the automobile I have cut away the rear edges of the section 5, as indicated at 6, to permit of the contracted end of the

funnel-shaped section protruding within the housing 1. The openings formed by the cut-away portions 6 of the section 5 are adapted to span the spider-like frame 2 of the housing 1, as clearly illustrated in Fig. 3 of the drawings, and the periphery of the section 5 is further secured to the housing by a plurality of angular-shaped brackets 7, arranged at intervals around the periphery of the section 5. The section 5 also supports the remainder of the sections 4 in their stepped relative arrangement, the sections 4 being secured to one another by a plurality of substantially V-shaped brackets 8, which are arranged at intervals around the sections 4, and while serving to support said sections they also serve to retain the sections a sufficient distance apart to form annular air-passages 9.

The section 4 forming the front end of the aerator is provided with a spider-like frame 10, having an aperture 11 formed centrally therein which is adapted to aline with the aperture or opening 3 of the spider-like frame 2. To further brace and support the plurality of sections 4, I employ a tie-rod 12, having a suitable ornamental head 14. The rod 12 is placed in the apertures 3 and 11 of the spider-like frames and is secured therein by employing a nut 15, which is secured upon the screw-threaded end 16 of the tie-rod.

It will be observed by the construction of my improved aerator that I have devised novel and effectual means for deflecting air within the housing 1 of the automobile. When an automobile equipped with my improved aerator is in motion, a strong draft of air passes through the passages designated A, B, and C and creates a suction within the aerator that tends to draw air through the passages 9 with considerable force, the entire volume of air being carried into the housing 1 to cool the motor and its appurtenant parts mounted within the body of the automobile.

I preferably construct my improved aerator of brass of a light weight or a suitable metal which will enhance the general appearance of an automobile.

When an automobile equipped with my improved aerator is moving or speeding with considerable rapidity, the entire aerator will appear as a cone having a smooth surface, it being impossible to detect the plurality of sections of which the aerator is composed.

In Fig. 6 of the drawings I have illustrated one of the funnel-shaped sections of my improved aerator as being substantially octagon shape or conforming to a square having angular or rounded corners. It is obvious as to the general contour of the sections which I may employ, also as to the general contour that may be given the aerator by making the different sections of the aerator of various sizes and contours, that it is possible to so construct the funnel-shaped sections of the aerator whereby an aerator having a ram-like appearance can be provided, which will serve functionally as a pilot or fender for an automobile, the outermost end of the aerator being carried into close proximity to the ground or surface over which the machine travels.

While I have herein described the preferred manner of supporting the different sizes of sections of my improved aerator, it is manifest that suitable means may be employed for giving sufficient rigidity to the aerator, whereby it cannot become detached or broken by the automobile when traveling over irregular or roughened surfaces.

It will be noted that various changes may be made in the details of construction without departing from the general spirit and scope of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. The combination with a motor-driven vehicle, of an aerator attached to the front end of said vehicle, and adapted to convey air to said motor, said aerator consisting of a plurality of substantially funnel-shaped sections of varying diameters, one of said sections extending into the body of said vehicle and secured thereto, brackets mounted between each of said sections, a tie-rod passing through said sections and having its one end secured to the body of said vehicle, substantially as described.

2. In an attachment for motor-driven vehicles, the combination with the body of said vehicle, a spider-like frame carried by said body, of an aerator, said aerator consisting of a plurality of funnel-shaped sections having varying diameters, means to secure said sections together to form a plurality of annular passages, and means to secure said sections to the body of said vehicle, substantially as described.

3. An aerator for automobiles consisting of a plurality of substantially funnel-shaped sections arranged one within the other to provide a plurality of annular passages, and means to secure said sections to one another, substantially as described.

4. The combination with an automobile, of an aerator consisting of a plurality of substantially funnel-shaped sections interlocked together, said sections being arranged to provide a plurality of tangentially-disposed air-passages adapted to deflect air to a common point, substantially as described.

5. The combination with an automobile, of an aerator consisting of a series of substantially funnel-shaped sections, said sections providing annular air-passages adapted to deflect air to a common point, means to secure said sections in engagement with said automobile, substantially as described.

6. The combination with an automobile, of an aerator consisting of a series of deflectors arranged one within the other to convey air

to a common point, means to secure said deflectors together, and means to lock said deflectors in engagement with said automobile, substantially as described.

7. The combination with an automobile, of an aerator consisting of a plurality of deflectors arranged one within the other and adapted to convey air to a common point, substantially as described.

8. The combination with an automobile, of a substantially cone-shaped aerator adapted to convey air to a common point, substantially as described.

9. An aerator consisting of a plurality of deflectors interlocked together and adapted to convey air to a common point.

10. The combination with an automobile, of a cooler consisting of a plurality of substantially funnel-shaped sections interlocked together and adapted to convey air into said automobile, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

EDWIN G. NICEWANER.

Witnesses:
DAVID DINES,
JNO. L. DONALDSON.